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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,461	09/08/2003	Michael R. DeLuca	1117-R-03	9797

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EXAMINER

NORMAN, MARC E

ART UNIT PAPER NUMBER

3744

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/657,461

Applicant(s)

DELUCA, MICHAEL R.

Examiner

Marc E. Norman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17,49,52-58,66 and 71 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17,49,52-58,66 and 71 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4/27/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments with respect to claims 1-17, 49, 52-58, 66, and 71 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5, 49, 52, 53, and 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keating et al. in view of Roff.

As per claims 1, 49, 52, and 71, Keating et al. teaches a thermostat programmed to control the temperature of a temperature modifying device to achieve a desired temperature (column 3, lines 35-37), and to operate an air circulating system independent of the temperature

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modifying device (column 4, lines 20-24) in order to prevent mold/mildew/allergens. Keating et al. does not teach circulating the air at selected intervals. However, the concept of circulating air periodically to prevent mold/mildew buildup is well known in the art. Roff, for example, teaches a system/method of preventing allergen buildup wherein air is circulated at predefined time intervals (paragraph [0020], lines 13-14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply this feature of Roff to the system/method of Keating for the purpose of helping to prevent allergen buildup (Roff, Abstract, lines 1-6).

As per claims 2, 3, and 53, Keating et al. does not teach a user input for entering the predetermined interval information. However, to the extent that such information is programmed, as taught by Roff, it would have been obvious to provide an input mechanism for the purpose of assisting such programming.

As per claims 4 and 5, as similarly discussed in the previous Office Action, Roff does not specify the duration of the ON periods. However, official notice is taken that the system of Roff is capable of being set over a variety of time periods. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adjust the system to operate for the recited time periods as a matter of design choice for the purpose of improving the efficiency of the system.

Claims 6-11 and 54-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heth in view of Toth.

As per claims 6 and 54, Keating et al. does not teach entering filtration information or creating a display during the control of thermal output. Toth teaches an air conditioning system filtration information is entered and displayed (column 4, line 63 – column 5, line 2). Since, as

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written, there is no direct connection within applicant's claim between the filter information and the air circulating control, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply this feature of Toth to the system of Keating et al. for the simple purpose of monitoring the filter status of the air conditioner.

As per claim 7, official notice is taken that these are common and typical filter duration periods.

As per claims 8 and 55, Toth teaches indicating that the filter needs to be checked (column 4, line 66 – column 5, line 2).

As per claims 9 and 10, since Toth teaches the third alternative of claim 8, the time and percentage representation features (which apply respectively to the first and second alternatives of claim 8) are not applicable.

As per claims 11 and 56, Toth teaches the filter output being based on the user input information and operation of the system (column 4, line 63 – column 5, line 2).

Claims 12-17, 57, 58, and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keating et al. in view of Roff, Toth and Yoho.

As per claims 12 and 57, Toth does not teach the filtration display information being based sensor sensing a characteristic of the circulating system. However, indicating filter performance information based on such factors as air pressure is common and well-known in the art (see for example Yoho at column 7, lines 4-6). Accordingly, this feature would have been obvious to one of ordinary skill in the art for the simple purpose of further monitoring the efficiency of the filter of Toth.

As per claims 13, 58, and 66, Yoho teaches the characteristic being air pressure.

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As per claim 14, Toth teaches a filter reset feature (column 4, line 63).

As per claim 15, Yoho teaches the pressure sensor being located near the filter (column 7, lines 4-6).

As per claim 16, official notice is taken that these are all common and well-known means of sensor communication.

As per claim 17, Yoho teaches determining the filter status indication based on the sensed air pressure.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc E. Norman whose telephone number is 571-272-4812. The examiner can normally be reached on Mon.-Fri., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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MN

A handwritten signature in black ink, appearing to read 'M. Norman', with a stylized flourish at the end.

**MARC NORMAN  
PRIMARY EXAMINER**